

Antero Resources Docket 199-192
Morris Unit #1 4/2/09



Antero Resources
1625 17th Street - Suite 300
Denver, Colorado 80202
Office 303.357.7310
Fax 303.357.7315

March 31, 2009

West Virginia Oil & Gas Conservation Commission
Attn: Cindy Raines
601 57th Street
Charleston, WV 25304

RE: Morrison Unit 1 (Deep Well)
Quadrangle: Wolf Summit
Harrison County/Coal District, West Virginia

*Need mylar
& original
app.*

Ms. Cindy Raines:

Antero Resources Appalachian Corporation (Antero) had originally requested and cancelled an exception location hearing for the Morrison Unit 1. Antero has reconfigured the voluntary unit in order to make the subject well a legal location according to Rule 39-1.4-2 of the West Virginia Oil & Gas Conservation Commission. Please find enclosed the revised plat and Voluntary Unit Affidavit showing the new unit boundary and unit acreage for the Morrison Unit 1 (deep well).

If you have any questions please feel free to contact me at (303) 357-6412.

Thank you in advance for your consideration.

Sincerely,

Ashlie Mihalcin

Ashlie Mihalcin
Permit Representative
Antero Resources Appalachian Corporation

Enclosures

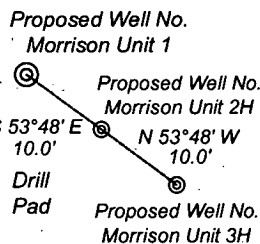
Cc: Amy Blanchard, WVDEP Permitting

Antero Resources
Well No. Morrison Unit 1
Antero Resources Appalachian Corporation
153.7 Acre Unit

TAX MAP 285 SURFACE TRACT DATA

Par.	Owner	Acres
49	Kimberly A. Male	9.17
51	Kimberly A. Male	59.52
31	T. Cunningham	172.26
52	Dale A. Garrett	4 2/3
30	Lloyd L. & Mary Lou Tracey	31.57
28	Jackson Gerrard	3
29	Oral K. & Charlotte Cutlip	3
9	Edgar Williams Estate	167.75
109	Five H Investments, LLC	150
32	Five H Investments, LLC	285.14
51.1	John D. & Johnna S. Maloney	12.00
27	John D. & Johnna S. Maloney	5.0

GRID NORTH



Notes:

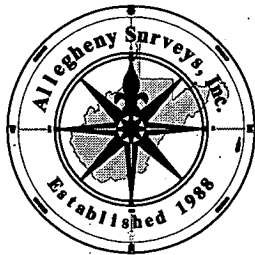
Well site coordinates are
N: 292183 Latitude: 39°17'55.09"
E: 1742466 Longitude: 80°24'36.06"
West Virginia
Coordinate System of 1927, North Zone
based upon
Differential GPS Measurements.
Plat orientation and corner and well
references are based upon the grid
north meridian.
Well location references are based upon
the magnetic meridian.

Legend

- Proposed gas well
- Found corner, as noted
- Surface boundary (approximate)
- Interior surface tracts (approx.)
- Unit Boundary

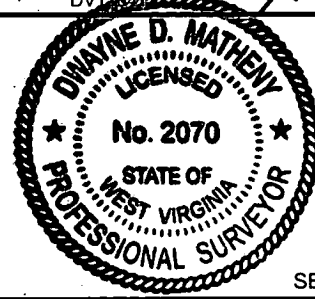
LINE	BEARING	DISTANCE
L1	N 44°45' W	1185.4'
L2	N 23°53' E	1421.8'
L3	N 48°45' E	905.2'
L4	S 14°37' E	1390.0'
L5	N 79°17' W	278.9'

(+) Denotes location of well on United States topographic maps



I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

P.S. 2070



FILE NO: 03-36-C-09
DRAWING NO: Antero_Morrison1_REVPlat
SCALE: 1" = 1000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: CORS Glenville, WV

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

DATE: March 25 20 09
OPERATOR'S WELL NO. Morrison Unit 1
API WELL NO:
47 033
STATE COUNTY PERMIT

WELL TYPE: ☐ OIL ☒ GAS ☐ LIQUID INJECTION ☐ WASTE DISPOSAL
(IF GAS) PRODUCTION: ☐ STORAGE ☒ DEEP ☐ SHALLOW
LOCATION: ELEVATION: 1208' WATERSHED Limestone Run
QUADRANGLE: Wolf Summit DISTRICT: Coal COUNTY: Harrison
SURFACE OWNER: Kimberly A. Male ACREAGE: 59.52
OIL AND GAS ROYALTY OWNER: Michael J. Francis LEASE NO: DV11641 ACREAGE: 81
PROPOSED WORK: ☒ DRILL ☐ CONVERT ☐ DRILL DEEPER ☒ FRACTURE OR STIMULATE ☐ PLUG OFF OLD FORMATION
☒ PERFORATE NEW FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7010'
WELL OPERATOR: Antero Resources Appalachian Corporation DESIGNATED AGENT: CT Corporation System
ADDRESS: 1625 17th Street ADDRESS: 707 Virginia Street East, 16th Floor
Denver, CO 80202 Charleston, WV 25301

A F F I D A V I T
Voluntary Unit

The undersigned affiant, William J. Pierini being first duly sworn, says that he/she is the Division Landman, for Antero Resources Appalachian Corporation (Antero), with an address of 1625 17th Street, Denver, CO 80202.

Affiant further states as follows:

THAT, Antero intends to drill a deep well in Coal District, Harrison County, West Virginia. Known and referred to as the Morrison Unit # 1 (the "well"), which will be drilled to Oriskany formation and completed in the Marcellus formation;

THAT, Antero is applying to the WV Department of Environmental Protection ("WVDEP"), Office of Oil and Gas for the requisite authority and permit to drill, complete and operate the well.

THAT, Antero owns the oil and gas leasehold rights (the "Lease") to all lands within at least 400 feet of the well.

THAT, Antero has created a voluntary 153.7 acre unit around the Well (the "Unit") for the purpose of consolidating the Leases within the Unit, in compliance with the rules and regulations of the WVDEP and the provisions of the Leases;

THAT, Antero, by and through its representatives, has contacted each lessor of the Leases within the Unit ("the lessors") and explained the facts presented above, as well as the purpose and the intent of the voluntary Unit; **

THAT, the Lessors understand, agree to and acknowledge their inclusion in the voluntary Unit and their rights to a proportionate share of the royalties from the production and/or revenues derived from the Well, as set forth in each of the Leases, and;

By: William J. Pierini

Title: Division Landman

Taken, subscribed and sworn before me this 30 day of MARCH, 2009.

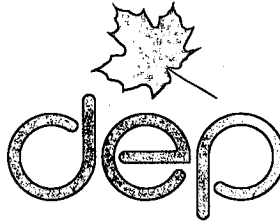
My commission expires on:

AFFIX Notary Seal

A M K STOHR
Notary Public
State of Colorado

AMK Stohr
NOTARY PUBLIC

**** OR HAS THE PRIOR AUTHORIZATION UNDER ITS OIL AND GAS LEASEHOLD TO FORM THIS VOLUNTARY UNIT.**



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Joe Manchin III, Governor
Randy C. Huffman, Cabinet Secretary
www.wvdep.org

**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA**

IN THE MATTER OF THE REQUEST BY ANTERO
RESOURCES FOR AN EXCEPTION LOCATION
REGARDING THE DRILLING OF THE PROPOSED
MORRIS UNIT #1 WELL TO BE LOCATED IN
COAL DISTRICT, HARRISON COUNTY, WEST
VIRGINIA.

DOCKET NO. 199
CAUSE NO. 192

NOTICE OF HEARING

Antero Resources ("Antero") has requested the Commission grant an exception to Rule 39.1.4.2 for the proposed well identified as the Morris Unit #1 to be located in Harrison County, West Virginia. The proposed well location does not meet the spacing requirements imposed on deep wells; therefore, Antero has requested approval from the Commission for an exception to the rule as provided in 39.1.4.3.

The matter has been scheduled as stated below:

DATE: April 2, 2009

TIME: 11:00 am

PLACE: Department of Environmental Protection
Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25304

IN THE NAME OF THE STATE OF WEST VIRGINIA

OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA

By: _____

Barry K. Lay, Chairman

Dated this 9th day of March, 2009, at Charleston, West Virginia.

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✓ cert.

✓ Cong Room

✓ Chap

✓ S of S

✓ news

~~little old~~
~~new~~

Antero

Raines, Cindy J

From: legals [legals@exponent-telegram.com]
Sent: Tuesday, March 10, 2009 10:09 AM
To: Raines, Cindy J
Subject: Re: Legal Ad
Attachments: 00081207.pdf

Notice will run March 13 & 20; charge will be 42.32. Proof attached.

Becky Charnoplosky
Exponent Telegram
P.O. Box 2000
Clarksburg, WV 26302
Phone: (304)626-1417
Fax: (304)622-3629
Email: legals@exponent-telegram.com

Raines, Cindy J wrote:

>
> Please confirm receipt of the attached letter requesting the
> publication of a "Notice of Hearing".
>
> Thanks,
>
> Cindy Raines
>
> Oil and Gas Conservation Commission
>
> 601 57th Street, SE
>
> Charleston, WV 25304
>

TRANSMISSION VERIFICATION REPORT

TIME : 03/10/2009 07:53
NAME : WV DEP
FAX : 3049260452
TEL : 3049260440
SER.# : BR0D7J636588

DATE, TIME	03/10 07:52
FAX NO./NAME	93049881419
DURATION	00:00:18
PAGE(S)	01
RESULT	OK
MODE	STANDARD
	ECM



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Joe Manchin III, Governor
Randy C. Huffman, Cabinet Secretary
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**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF WEST VIRGINIA**

IN THE MATTER OF THE REQUEST BY ANTERO
RESOURCES FOR AN EXCEPTION LOCATION
REGARDING THE DRILLING OF THE PROPOSED
MORRIS UNIT #1 WELL TO BE LOCATED IN
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The matter has been scheduled as stated below:

DATE: April 2, 2009

TIME: 11:00 am

Docket # 199-192
Certified Mail

Antero Resources
Attention: Ashlie Mihalcin
1625 17th Street, Suite 300
Denver, CO 80202

91 7108 2133 3936 2964 2564

Consolidated Coal Company
1800 Washington Road
Pittsburgh, PA 15241-1405

91 7108 2133 3936 2964 2588

Patrick Cunningham
RR 4, Box 253
Clarksburg, WV 25301

91 7108 2133 3936 2964 2595

Kimberly A. Male
RR 4, Box 37
Clarksburg, WV 26301

91 7108 2133 3936 2964 2571

Three Musketeers, Inc.
P O Box 69
Buckhannon, WV 26201-0069

91 7108 2133 3936 2964 2601



March 3, 2009

West Virginia Oil & Gas Conservation Commission
Attn: Cindy Raines
601 57th Street
Charleston, WV 25304

Antero Resources
1625 17th Street - Suite 300
Denver, Colorado 80202
Office 303.357.7310
Fax 303.357.7315

RE: Request for Exception to Location of a Deep Well
Morrison Unit 1
Quadrangle: Wolf Summit
Harrison County/Coal District, West Virginia

West Virginia Oil & Gas Conservation Commission Members:

Antero Resources Appalachian Corporation (Antero) hereby requests a location exception for the Morrison Unit 1, which is a proposed "deep well", pursuant to the West Virginia Oil & Gas Conservation Commission.

According to Rule 39-1-4.2 of the West Virginia Oil & Gas Conservation Commission, no deep well shall be located less than 400 feet from a lease or unit boundary. The bottom hole location of the Morrison Unit 1 well is currently proposed to be 39.6 feet from the unit boundary bordering the Francis Lease and 205.3 feet from the unit boundary bordering the Morrison Lease (see enclosed survey plat). Please be advised that Antero is the current lease owner of both of the affected offset lease tracts listed above (Francis and Morrison leases). Antero believes the exception location is necessary to ensure the orderly development of the reservoir. Also enclosed for your review and consideration is the completed well work permit and supporting documentation for the proposed well.

Antero is pleased to provide to the West Virginia Oil & Gas Conservation Commission necessary evidence in support of this request.

Thank you in advance for your consideration. Please contact me at (303) 357-6412 or amihalcin@anteroresources.com once a hearing time and date has been set by the West Virginia Oil & Gas Conservation Commission.

Sincerely,

Ashlie Mihalcin
Permit Representative
Antero Resources Appalachian Corporation

Enclosures

cc: Jamie Peterson, WVDEP Environmental Resource Specialist/Permitting

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator Antero Resources Appalachian Corporation 494488557 033 Coal Wolf Summit
 Operator ID County District Quadrangle

2) Operator's Well Number: Morrison Unit 1 3) Elevation: 1,208'

4) Well Type: (a) Oil or Gas X
 (b) If Gas: Production X / Underground Storage
 Deep X / Shallow

5) Proposed Target Formation(s): Marcellus

6) Proposed Total Depth: 7270' MD Feet

7) Approximate fresh water strata depths: 50', 100'

8) Approximate salt water depths: N/A

9) Approximate coal seam depths: 390', 775'

10) Does land contain coal seams tributary to active mine?

11) Describe proposed well work Drill a vertical deep well to the Oriskany. Perforate, fracture and complete Marcellus Shale.

12) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	20"	H-40	94#	20'	20'	20 Cu. Ft.
Fresh Water	13-3/8"	J-55	48#	875'	875'	1055 Cu. Ft.
Coal	9-5/8"	J-55	36#	2386'	2386'	570 Cu. Ft.
Intermediate						
Production	5-1/2"	P-110	20#	7270'	7270'	1015 Cu. Ft.
Tubing	2-3/8"	N-80	4.3#	6954'		
Liners						

Packers: Kind
 Sizes
 Depths Set

1) Date: March 3, 2009

2) Operator's Well Number
Morrison Unit 1

3) API Well No.: 47 - 033 -
State County Permit

State County Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:

(a) Name	Kimberly A. Male ✓
Address	Rural Route 4 Box 37
	Clarksburg, WV 26301
(b) Name	
Address	
(c) Name	
Address	

6) Inspector

Tim Bennett
Address
601 57th Street
Charleston, WV 25304
Telephone
304-553-1073

5) (a) Coal Operator
Name _____
Address _____

(b) Coal Owner(s) with Declaration
Name Consolidated Coal Company ✓
Address 1800 Washington Rd.
Pittsburgh, PA 15241-1405

Name Three Musketeers Inc. ✓
Address P.O. Box 69
Buckhannon, WV 26201-0069

(c) Coal Lessee with Declaration
Name Patrick H. Cunningham ✓
Address Rural Route 4, Box 253
Clarksburg, WV 25301

TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:

LEASEE - PERSONS NAMED ABOVE TAKE NOTICE THAT:
Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

OR
X Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)
I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through on the above named parties by:

 X Certified Mail (Postmarked postal receipt attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and

A M K STORR
Notary Public
State of Colorado

Well Operator Antero Resources Appalachian Corporation
By: Kevin Kilstrom
Its: Vice President of Production
Address 1625 17th Street
Telephone (303) 357-7310

Subscribed and sworn before me this 3 day of March, 2009

My Commission Expires 3/7/09

Notary Public

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6, Section 8(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
Michael J. Francis	Reserve Gas Company	1/8	151/207
Dominion Exploration & Production Inc.	Antero Resources Appalachian Corporation	Assignment	1423/1068

Well Operator: Antero Resources Appalachian Corporation
By: Kevin Kilstrom
Its: Vice President of Production

AFFIDAVIT
Voluntary Unit

The undersigned affiant, William J. Pierini being first duly sworn, says that he/she is the
Division Landman, for Antero Resources Appalachian Corporation (Antero), with an address of
1625 17th Street, Denver, CO 80202.

Affiant further states as follows:

THAT, Antero intends to drill a deep well in Coal District,
Harrison County, West Virginia. Known and referred to as the Morrison Unit # 1 (the "well"),
which will be drilled to Oriskany formation and completed in the Marcellus formation;

THAT, Antero is applying to the WV Department of Environmental Protection
("WVDEP"), Office of Oil and Gas for the requisite authority and permit to drill, complete and operate the well.

THAT, Antero owns the oil and gas leasehold rights (the "Lease") to all lands within at
least 400 feet of the well.

THAT, Antero has created a voluntary 146 acre unit around the Well (the "Unit")
for the purpose of consolidating the Leases within the Unit, in compliance with the rules and regulations of the
WVDEP and the provisions of the Leases;

THAT, Antero, by and through its representatives, has contacted each lessor of the
Leases within the Unit ("the lessors") and explained the facts presented above, as well as the purpose and the intent
of the voluntary Unit; **

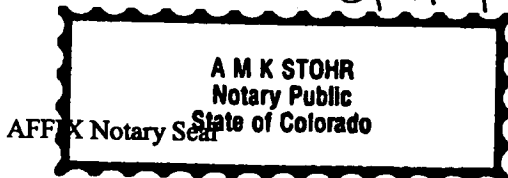
THAT, the Lessors understand, agree to and acknowledge their inclusion in the voluntary Unit and their
rights to a proportionate share of the royalties from the production and/or revenues derived from the Well, as set
forth in each of the Leases, and;

By: 

Title: Division Landman

Taken, subscribed and sworn before me this 3 day of March, 2009.

My commission expires on: 3/17/09




NOTARY PUBLIC

**** OR HAS THE PRIOR AUTHORIZATION UNDER ITS OIL AND GAS LEASEHOLD TO FORM THIS
VOLUNTARY UNIT.**

CERTIFICATE OF CONSENT AND EASEMENT

We, the undersigned, for valuable consideration, the receipt and sufficiency of which is hereby acknowledged, being all the owners of the surface of that certain lot, tract or parcel of land located in 07-Coal-Outside District, Harrison County, State of West Virginia, shown on the attached plat or survey, or hereby consent and grant an easement, pursuant to West Virginia Code, Section 22C-9-7(b) (4) and Operating Rule 4.4 of the Rules and Regulations of the West Virginia Oil and Gas Conservation Commission, to Antero Resources Appalachian Corporation, its successors or assigns, for the drilling and operation of a deep well for the production of oil or gas at the location shown on the attached plat or survey.

Executed this 5th day of Feb 2009, 2009.

Kimberly A. Male

STATE OF WEST VIRGINIA

COUNTY OF Harrison To-Wit

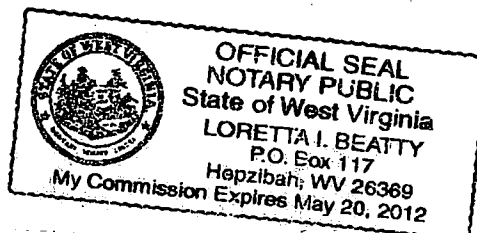
I, Loretta Beatty, a Notary Public in and for the aforesaid County and State, do hereby certify that Kimberly A. Male, whose name is signed to the writing above, bearing date on the 5th day of Feb, 2009, has this day acknowledged the same before me, in my said County and State.

Given under my hand this 5th day of Feb, 2009.

Loretta Beatty N.P.

My Commission expires on: 5/20/2012

This instrument prepared by:
WV Oil and Gas Conservation Commission
601 57th Street
Charleston, WV 25304



Recorded?

West Virginia Department of Environmental Protection
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

If no water well or spring is located within 1000 feet, the Chief may require the operator to sample and analyze water from a water well or spring within 2000 feet of the proposed well site.

Be advised, you have the right to sample and analyze any water supply at your own expense.

The laboratory used by the operator to analyze the samples will be approved by the Chief. The operator named below has decided to use the following laboratory to analyze the water samples:

<u>X</u>	Contractor Name	<u>Reliance Laboratories, Inc., P.O. Box 4657</u>
<u> </u>	Well operator's private laboratory	<u>Bridgeport, WV 26330 Tel:(304)842-5285</u>
	Well Operator	<u>Antero Resources Appalachian Corporation</u>
	Address	<u>1625 17th Street</u>
		<u>Denver, CO 80202</u>
	Telephone	<u>(303) 357-7310</u>

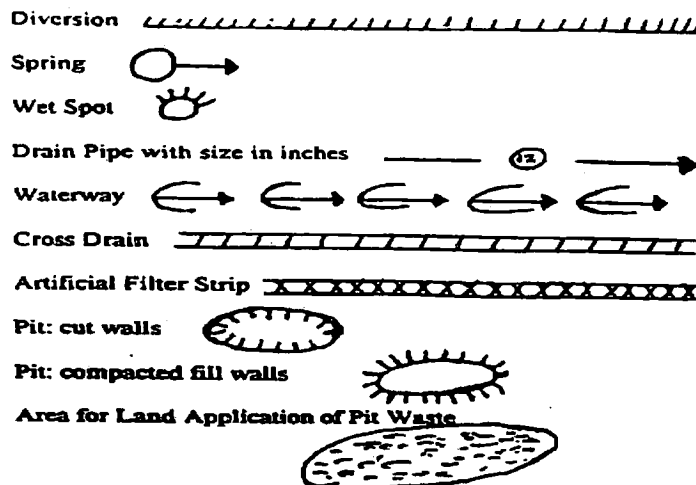
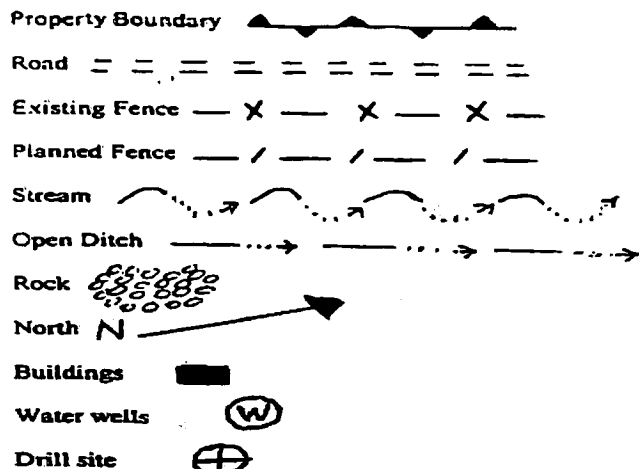
FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underlining which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site please indicate such.

No water well or spring is located within 1,000' of this well site.

**CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE**

A M K STONE
Notary Public
State of Colorado

LEGEND



Proposed Revegetation Treatment: Acres Disturbed 8.11 Prevegetation pH
 New Construction + 0.20 ac. + Existing Road 0.97 ac. + Location and Pit 6.94 ac. = 8.11 ac.

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)

Mulch 0.5 - 0.75 Tons/acre or hydro-seed Wood Fiber

Mulch 2-3 Tons/acre Hay or straw (will be used where needed)

SEED MIXTURES

Seed Type	Area I	lbs/acre
Tall Fescue		<u>40</u>
Annual Rye		<u>10</u>
Ladino Clover		<u>5</u>
Birdsfoot Trefoil		<u>10</u>

Seed Type	Area II	lbs/acre
Tall Fescue		<u>40</u>
Annual Rye		<u>10</u>
Ladino clover		<u>5</u>
Birdsfoot Trefoil		<u>10</u>

Attach:
 Drawing(s) of road, location, pit and proposed area for land application.

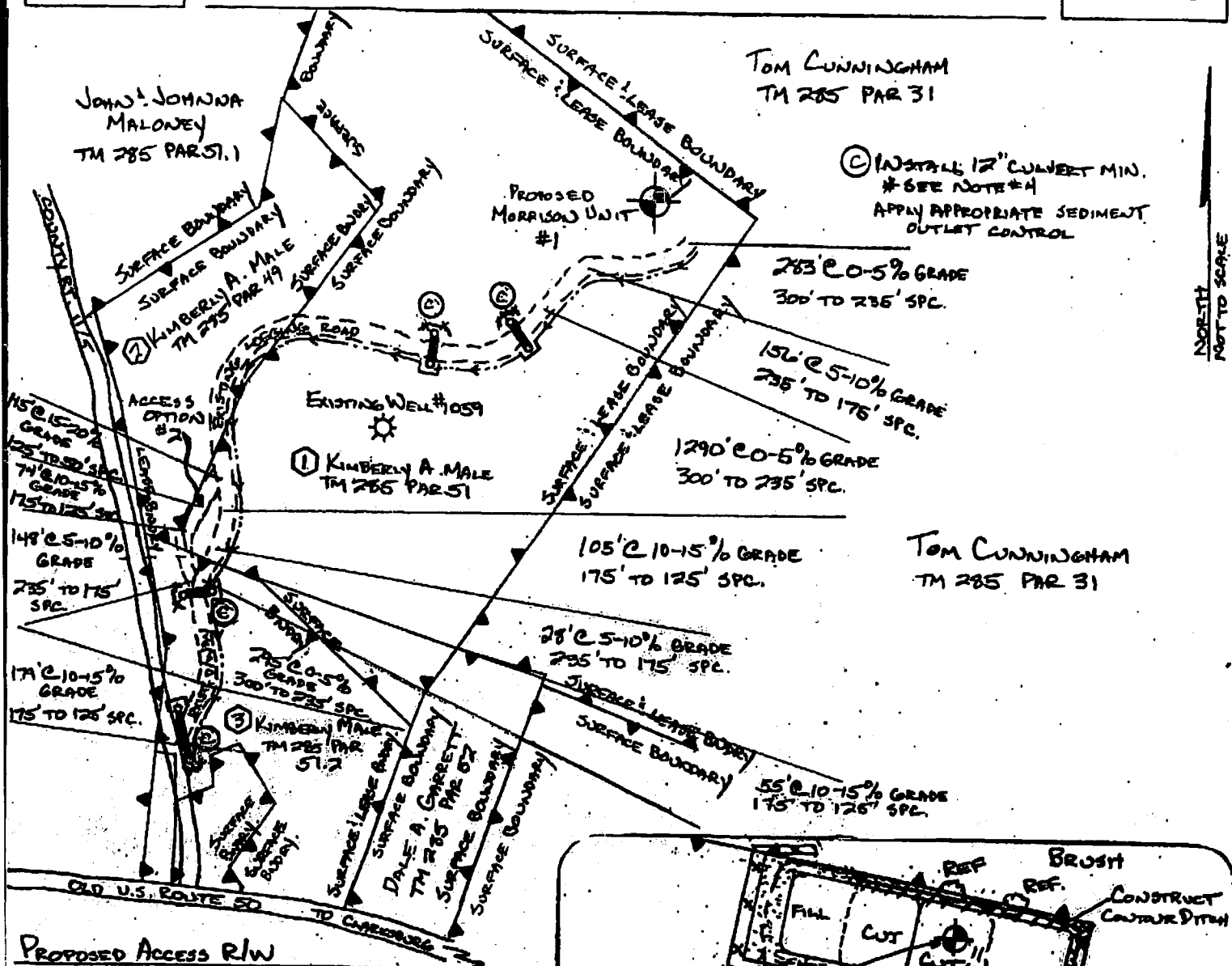
Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____

Comments: _____

Title: _____ Date: _____

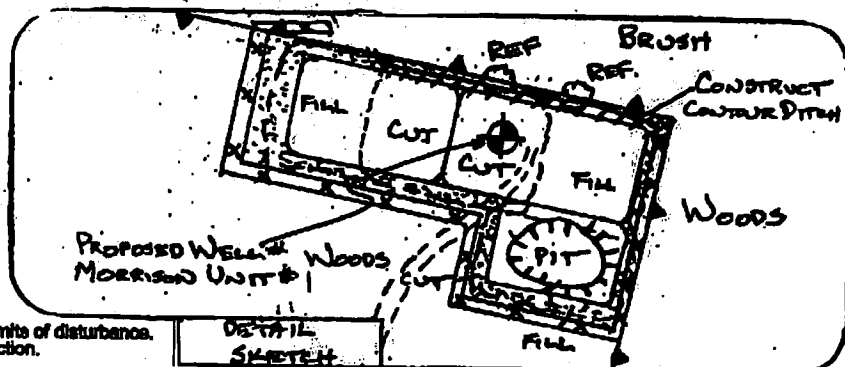
Field Reviewed? () Yes () No



PROPOSED ACCESS R/W

- ① KIMBERLY A. MALE 1,467' +/-
 ② KIMBERLY A. MALE 394' +/-
 ③ KIMBERLY A. MALE 440' +/-

- Notes:
 1.) Windrow brush and stumps below disturbance or place silt fence at lower limits of disturbance.
 2.) All cut and fill slopes will be seeded and mulched immediately after construction.
 3.) Install water bars on road during reclamation.
 4.) Install culverts as shown on the reclamation plan or as field conditions require.
 5.) Place hay bales below all culvert outlets and install sumps at inlets.
 6.) Install hay bales at the entrance of all sumps.
 7.) Rock access road for 200 feet from county road.
 8.) Maintain ditches during drilling and completion operation.
 9.) Unless otherwise noted, all roads shown hereon are existing and shall be maintained in accordance with WV D.E.P., Office of Oil and Gas Erosion and Sediment Control Field Manual as revised 2/88.
 10.) Erosion upon county/state roads shall be maintained in accordance with WV D.O.T. regulations, however, separate permits may be required by the WV D.O.T.
 11.) Sediment basins (traps) and appropriate erosion control barriers are to be constructed at all culverts and cross-drains as required in the aforementioned Erosion and Sediment Control Field Manual. Where field conditions dictate, alternative erosion control measures shall be enacted as required.
 12.) Earthwork contractors are responsible for notification to the operator and inspector prior to any deviation from this plan.



LEGEND

PROPERTY BOUNDARY	—▲—▲—▲—
ROAD	=====
DITCH	—+—+—+—
FENCE	—x—x—x—
PROPOSED WELL LOCATION	⊙
BROAD BASED DITCH	■
CULVERT	⊞
CROSS DRAIN	⊞
PIT-OUT WALLS	⊞
PIT-COMPACTED WALLS	⊞
AREA OF LAND APPLICATION OF PIT WASTE	⊞

DRAWN BY: DDM

DATE: 02/08/2009

PROJECT NO: 03-38-C-08

SURVEYING AND MAPPING SERVICES PERFORMED BY:

ALLEGHENY SURVEYS, INC.

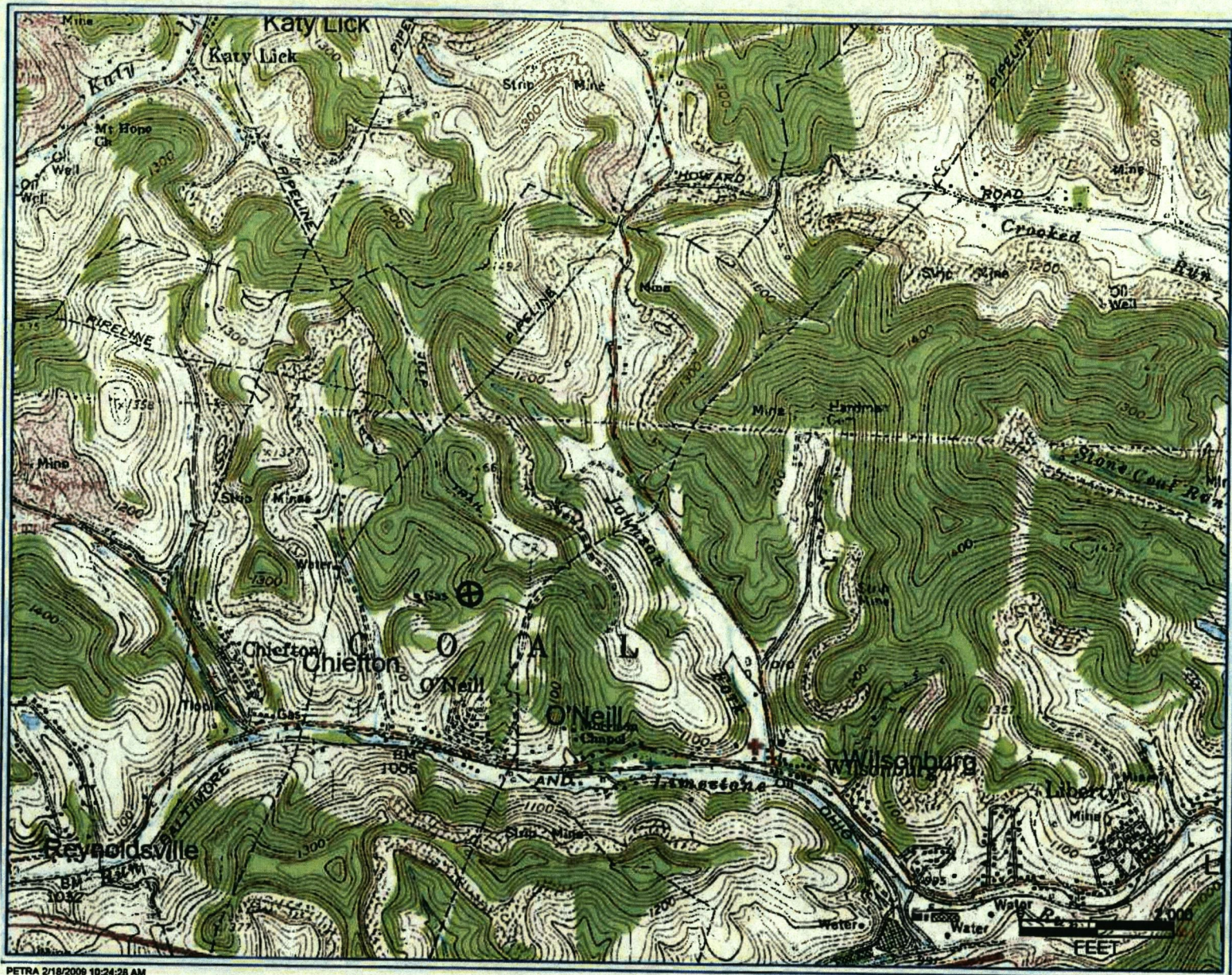
1-800-482-8606

P.O. BOX 438
 BIRCH RIVER, WV 26010
 PH: (304) 648-8908
 FAX: (304) 648-8908

1413 CHILDRESS ROAD
 ALUM CREEK, WV 26003
 PH: (304) 756-2948
 FAX: (304) 756-2948

123 STATE STREET
 BRIDGEPORT, WV 26330
 PH: (304) 648-8638
 FAX: (304) 648-8637





PETRA 2/18/2009 10:24:28 AM

Antero Resources Corporation

APPALACHIAN BASIN

Morrison Unit 1

Harrison County

0 2,000 4,000
FEET

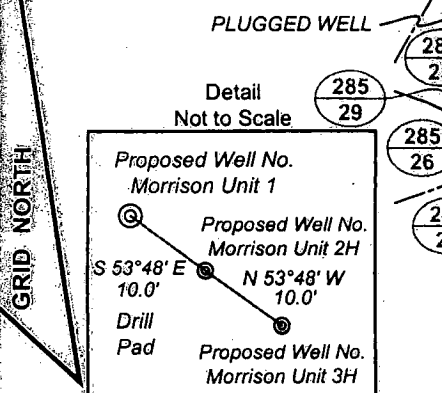
REMARKS

QUADRANGLE: WOLF SUMMIT
WATERSHED: WEST FORK
DISTRICT: COAL

January 9, 2009

Antero Resources
Well No. Morrison Unit 1
Antero Resources Appalachian Corporation
146.0 Acre Unit

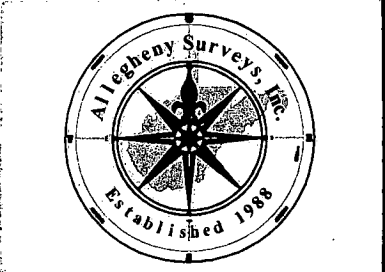
Par	Owner	Acres
49	Kimberly A. Male	9.17
51	Kimberly A. Male	59.52
31	T. Cunningham	172.26
52	Dale A. Garrett	4 2/3
30	Lloyd L. & Mary Lou Tracey	31.57
28	Jackson Gerrard	3
29	Oral K. & Charlotte Cutlip	3
9	Edgar Williams Estate	167.75
109	Five H Investments, LLC	150
32	Five H Investments, LLC	285.14
51	John D. & Johnna S. Maloney	12.00
27	John D. & Johnna S. Maloney	5.0



Notes:

Well site coordinates are
N: 292183 Latitude: 39°17'55.09"
E: 1742466 Longitude: 80°24'36.06"
West Virginia
Coordinate System of 1927, North Zone
based upon
Differential GPS Measurements.
Plat orientation and corner and well
references are based upon the grid
north meridian.
Well location references are based upon
the magnetic meridian.

- Legend**
- Proposed gas well
 - Found corner, as noted
 - Surface boundary (approximate)
 - Interior surface tracts (approx.)
 - Unit Boundary

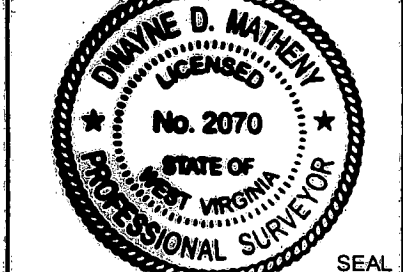


FILE NO: 03-36-C-09
DRAWING NO: Antero_Morrison1_Plat
SCALE: 1" = 1000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: CORS Glenville, WV

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

P.S. 2070

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS



DATE: February 27 20 09
OPERATOR'S WELL NO. Morrison Unit 1
API WELL NO:
47 - 033 -
STATE COUNTY PERMIT

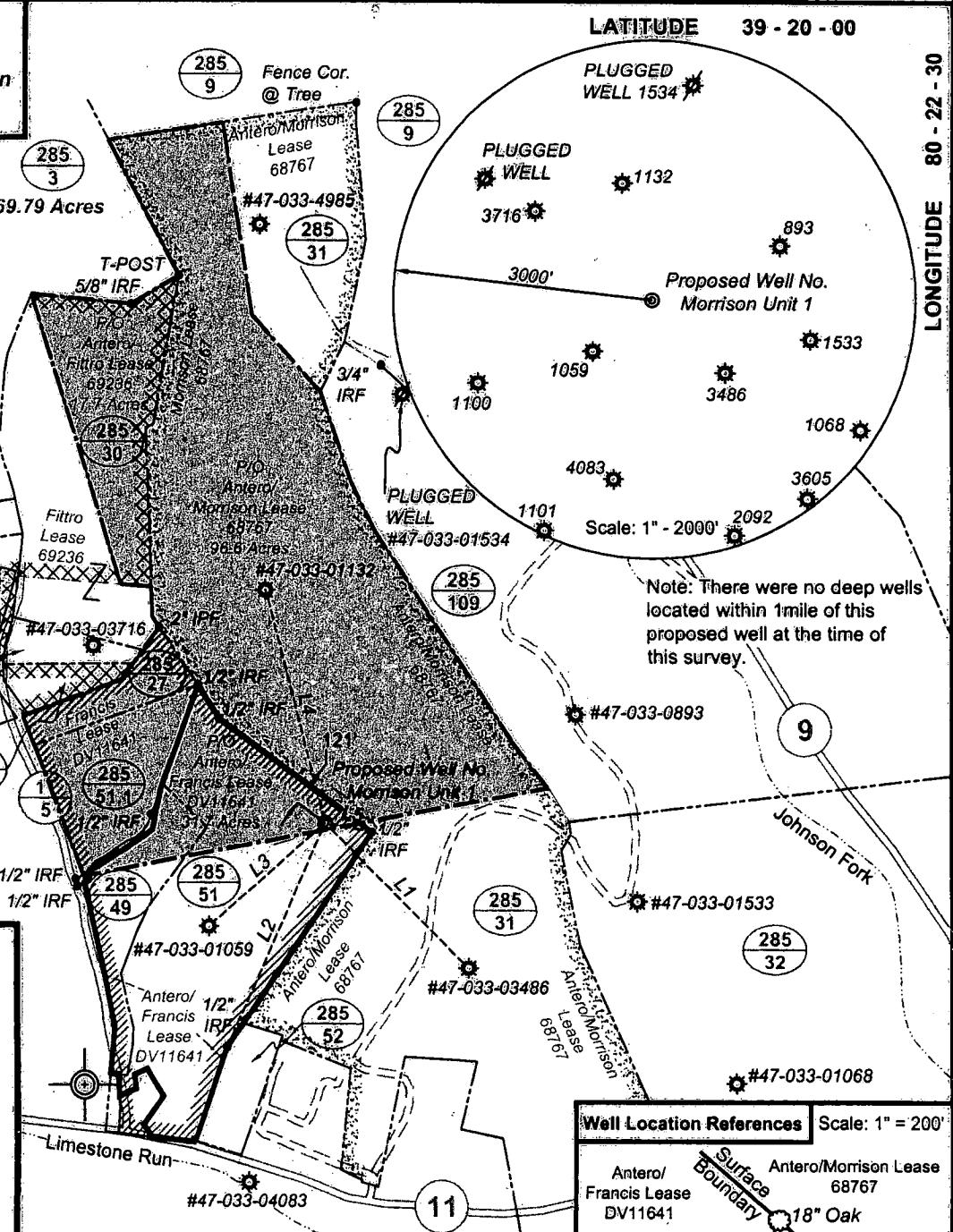
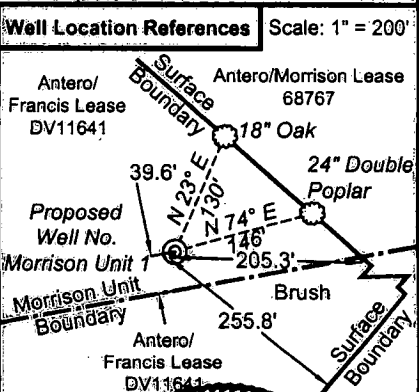
WELL TYPE: ☐ OIL ☒ GAS ☐ LIQUID INJECTION ☐ WASTE DISPOSAL
(IF GAS) PRODUCTION: ☐ STORAGE ☒ DEEP ☐ SHALLOW
LOCATION: ELEVATION: 1208' WATERSHED: Limestone Run
QUADRANGLE: Wolf Summit DISTRICT: Coal COUNTY: Harrison
SURFACE OWNER: Kimberly A. Male ACREAGE: 59.52
OIL AND GAS ROYALTY OWNER: Michael J. Francis LEASE NO: DV11641 ACREAGE: 81
PROPOSED WORK: ☒ DRILL ☐ CONVERT ☐ DRILL DEEPER ☒ FRACTURE OR STIMULATE ☐ PLUG OFF OLD FORMATION
☒ PERFORATE NEW FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) 7270'
☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 2040'

WELL OPERATOR: Antero Resources Appalachian Corporation
ADDRESS: 1625 17th Street
Denver, CO 80202

DESIGNATED AGENT: CT Corporation System
ADDRESS: 707 Virginia Street East, 16th Floor
Charleston, WV 25301

LINE	BEARING	DISTANCE
L1	N 44°45' W	1185.4'
L2	N 23°53' E	1421.8'
L3	N 48°45' E	905.2'
L4	S 14°37' E	1390.0'
L5	N 79°17' W	278.9'

(+) Denotes location of well on United States topographic maps



Note: There were no deep wells located within 1 mile of this proposed well at the time of this survey.

GRID NORTH

10,032'

LATITUDE 39 - 20 - 00

LONGITUDE 80 - 22 - 30

12,539'



Antero Resources
1625 17th Street - Suite 300
Denver, Colorado 80202
Office 303.357.7310
Fax 303.357.7315

March 24, 2009

West Virginia Oil & Gas Conservation Commission
Attn: Cindy Raines
601 57th Street
Charleston, WV 25304

RE: Request to Cancel Exception Location Hearing (Docket No. 199/Cause No. 192)
Morrison Unit 1
Quadrangle: Wolf Summit
Harrison County/Coal District, West Virginia

West Virginia Oil & Gas Conservation Commission Members:

Antero Resources Appalachian Corporation (Antero) hereby requests that the exception location hearing scheduled for the Morrison Unit 1 be cancelled. Antero has now reconfigured the unit making the subject well a legal location, according to Rule 39-1-4.2 of the West Virginia Oil & Gas Conservation Commission.

Please be advised that a revised Mylar Plat and Voluntary Unit Affidavit will be submitted to your office and to the WVDEP Office of Oil & Gas showing the changes to the voluntary unit.

We apologize for any inconvenience that the above changes may have caused. Please contact me at (303) 357-6412 or amihalcin@anteroresources.com if you have any additional questions/concerns.

Sincerely,

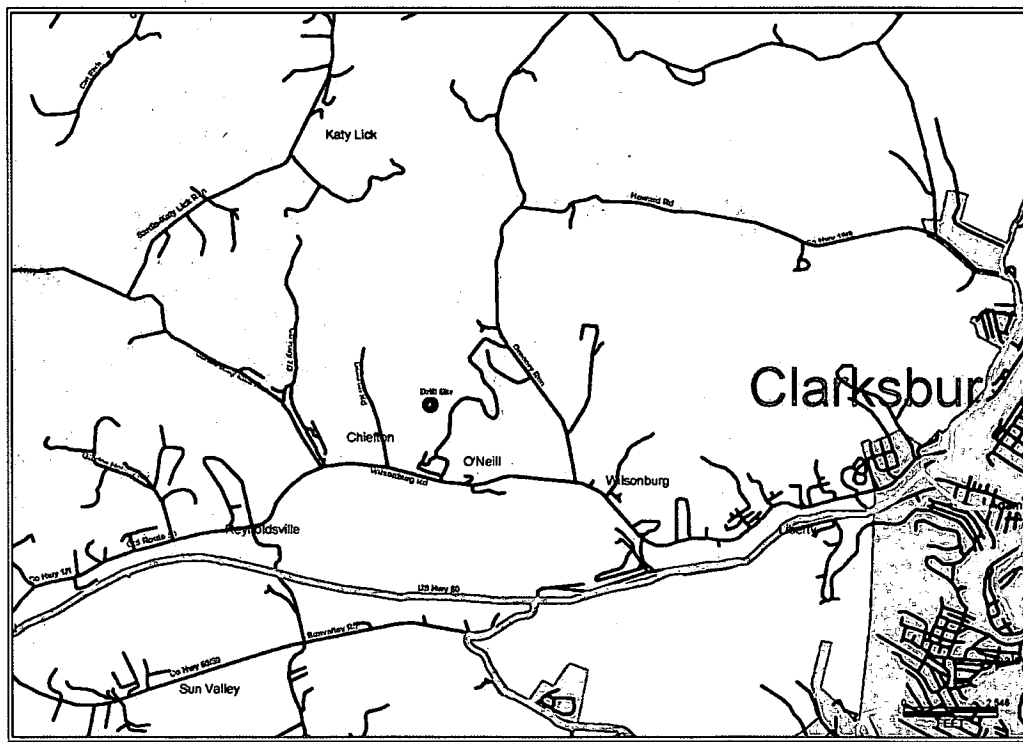
Ashlie Mihalcin
Permit Representative
Antero Resources Appalachian Corporation

cc: Amy Blanchard, WVDEP Permitting



Safety Plan for Morrison Unit 1

Antero Resources



March 2009

Approval Sheet

The Office of Oil and Gas and the Oil and Gas Conservation Commission have set forth minimum requirements for necessary equipment and procedures that must be addressed in a Safety Plan ("Plan") and shall be submitted and approved prior to drilling a deep well. A deep well shall be any well which meets the definition as provided for in Chapter 22C, Article 9 of the West Virginia Code.

A site specific Safety Plan must be submitted with each deep well application or no later than one week prior to spudding. Approved Plans shall be maintained and available at the drilling rig at all times.

The Office of Oil and Gas must approve all changes and modifications to previously approved plans.

This plan has met the requirements of the Policy Statement Deep Well Drilling Procedures and Site Safety Plan Requirements as set forth by:

West Virginia Division of Environmental Protection, Office of Oil and Gas

And

West Virginia Oil and Gas Conservation Commission.

Approved this day _____ of month _____, 2009 by

Date: _____

Date: _____

Plan Modification*

Revision No.	Description of Revision	Antero Preparer	Antero Reviewer/Approver	Agency Approval	Date

*The Office of Oil and Gas must approve all changes and modifications to previously approved plans.

Safety Plan for Morrison Unit Antero Resources

1.0 Siting Requirements

Appendix A provides information which shows the location of the access road, pit, flare line, nearby dwellings and prevailing wind direction.

2.0 Site Safety Plan

2.1. Pre-spud Safety Meeting

Prior to beginning drilling operations, a pre-spud safety meeting shall be held which:

- Includes personnel employed and involved in the drilling operations, and
- Includes the District Oil and Gas Inspector (or other designated Office of Oil and Gas representative).

Please list the above personnel as a record of attendance for Pre-Spud Meeting

	Name	Organization	Job Title
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____

9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____
25. _____

2.2 Personnel and Visitor Log

This log is intended to provide a current headcount of all persons present at the site at any given time. Therefore, all personnel and visitors must sign in upon entering the site and sign out upon departure. This log will be maintained at all times and is provided in Appendix B. for use at the site.

2.3 Evacuation Plan

The Drilling Supervisor will establish two muster points at which all persons on site will assemble for personnel safety and verification of headcount. These two points will be opposite from each other and one of which is located at the entrance to the site.

In the event of an emergency requiring the evacuation of personnel, an audible and visual alarm will be sounded. The Drilling Supervisor and/or the Toolpusher will determine if local residents should be evacuated at this time depending on the outcome of their assessment of the situation. If local resident evacuation is indicated, the Drilling Supervisor and/or the

Toolpusher will be responsible for notifying the local impacted residents, or the local authorities will take this responsibility depending on the urgency and availability of the local authorities. Section 2.5 of this plan provides a list of emergency response personnel or organizations that may assist in the local resident evacuation.

Included in Appendix A. are site specific maps and drawings that may assist in the emergency response and evacuation process.

The Drilling Supervisor and/or the Toolpusher will secure the Personnel and Visitor log before evacuating the site in order to perform a headcount at the muster point.

2.4 Safety Meetings

Safety meetings will be conducted as follows:

- Pre-Spud,
- Pre-Tour,
- Post Accident/Near Miss, and
- As-Needed.

A record of each meeting will be made and maintained on site for the duration of the drilling period. Typically, the drilling company will conduct these safety meetings with Antero Resources personnel participating as needed. These records may be maintained separate from this plan.

2.5 Emergency Response Personnel

Requesting public emergency response assistance for this location would be accomplished via telephone to Harrison County Dispatch which can be reached by dialing 911. From there, they will dispatch the appropriate and available emergency response agencies depending on the nature and extent of the emergency. This location is within the Reynoldsville Volunteer Fire Department's Area but since it is a volunteer department and not fully staffed, the Harrison County Dispatch should be contacted. They are responsible for dispatching the necessary emergency response resources.

Harrison County Dispatch

911 emergency

304-623 6559 business office

3.0 Casing Requirements

3.1 Geologic Prognosis

The table below provides details on the location of all freshwater, saltwater, oil and gas producing, hydrogen sulfide producing, "thief", and high pressure and volume zones known at this time. The Onondaga is suspected to have a potential for producing hydrogen sulfide.

Top	TVD	Comment
Fresh water/coal	50	From nearest offset well records
Fresh water/coal	100	From nearest offset well records
Unidentified Coal	390	From nearest offset well records
Allegheny coal(undif)	775	From nearest offset well records
Big Lime	1425	From structure grid
Fifty foot SS	1977	
Gordon	2166	
Fifth Sand	2410	
Bayard	2455	
Speechly	3107	
Balltown	3320	
Bradford	3846	
Benson	4493	From structure grid
Alexander	4798	

Elk	5012	
Sycamore	6312	
Tully	6712	
Marcellus	6934	
Onondoga	7120	
TD	7270	Permitted as a deep well

3.2 Casing and Cementing Program

The following table shows the detailed casing and cementing program that employs a minimum of three strings of casing which are of sufficient weight and quality for the anticipated conditions to be encountered. The casing setting depths are sufficient to cover and seal off those zones as identified in the preceding table.

12) PROGRAM	CASING AND TUBING		Morrison Unit 1					
	TYPE	SPECIFICATIONS						
FOOTAGE	INTERVALS	CEMENT						
		<u>Size</u>	<u>Grade</u>	<u>Weight per ft</u>	<u>For Drilling</u>	<u>Left in Well</u>	<u>Fill -up (Cu. Ft.)</u>	<u>Casing Setting depth</u>
Conductor		20"	H-40	94	yes	Yes	20	20'
Fresh Water		13- 3/8"	J-55	48	yes	Yes	1055	875
Coal		9-5/8"	J-55	36	yes	Yes	570	2386
Intermediate								
Production		5.5	P-110	20	yes	Yes	1015	7,270
Tubing		2.375	N-80	4.3lb	no	no	N/A	6954
Liners								
Packers:		Kind	None	None	None	None	None	
Sizes								
Depths Set								

Cementing Program

Hole Size	Weight	Fill Amount	Cu-FT/FT	Amount
24	94	20	0.9599	19.198
17.5	48	875	0.60055	525.48125
12.25	36	1511	0.3132	473.2452
7.875	20	4,884	0.1733	846.3972

4.0 BOP Requirements

4.1 BOP Equipment

The following is a list of all BOP equipment with types, sizes and ratings to be utilized and available during the drilling of the deep well.

5M system:

- Annular preventer*
- Pipe ram, blind ram, and, if conditions warrant, as specified by the authorized officer, another pipe ram shall also be required*
- A second pipe ram preventer shall be used with a tapered drill string
- Drilling spool, or blowout preventer with 2 side outlets (choke side shall be a 3-inch minimum diameter, kill side shall be at least 2-inch diameter)*
- 3 inch diameter choke line
- 2 choke line valves (3 inch minimum)*
- Kill line (2 inch minimum)
- 2 chokes with 1 remotely controlled from rig floor
- 2 kill line valves and a check valve (2 inch minimum)*
- Upper kelly cock valve with handle available

- When the expected pressures approach working pressure of the system, 1 remote kill line tested to stack pressure (which shall run to the outer edge of the substructure and be unobstructed)
- Lower kelly cock valve with handle available
- Safety valve(s) and subs to fit all drill string connections in use
- Inside BOP or float sub available
- Pressure gauge on choke manifold
- All BOPE connections subjected to well pressure shall be flanged, welded, or clamped*
- Fill-up line above the uppermost preventer.

If repair or replacement of the BOPE is required after testing, this work shall be performed prior to drilling out the casing shoe.

When the BOPE cannot function to secure the hole, the hole shall be secured using cement, retrievable packer or a bridge plug packer, bridge plug, or other acceptable approved method to assure safe well conditions.

Minimum standards for choke manifold equipment.

- i. All choke lines shall be straight lines unless turns use tee blocks or are targeted with
- ii. running tees, and shall be anchored to prevent whip and reduce vibration.
- iii. ii. Choke manifold equipment configuration shall be functionally equivalent to the appropriate example diagram shown in Appendix C. The actual configuration of the chokes may vary.

All valves (except chokes) in the kill line choke manifold, and choke line shall be a type that does not restrict the flow (full opening) and that allows a straight through flow).

Pressure gauges in the well control system shall be a type designed for drilling fluid service

5M and higher system accumulator shall have sufficient capacity to open the hydraulically-controlled gate valve (if so equipped) and close all rams plus the annular preventer (for 3 ram systems add a 50 percent safety factor to compensate for any fluid loss in the control system or preventers) and retain a minimum pressure of 200 psi above precharge on the closing manifold without use of the closing unit pumps. The fluid reservoir capacity shall be double the usable fluid volume of the accumulator system capacity and the fluid level of the reservoir shall be maintained at the manufacturer's recommendations. Two independent sources of power shall be available for powering the closing unit pumps. Sufficient nitrogen bottles are suitable as a

backup power source only, and shall be recharged when the pressure falls below manufacturer's specifications.

Accumulator Precharge Pressure Test

This test shall be conducted prior to connecting the closing unit to the BOP stack and at least once every 6 months. The accumulator pressure shall be corrected if the measured precharge pressure is found to be above or below the maximum or minimum limit specified below (only nitrogen gas may be used to precharge):

Accumulator working pressure rating	Minimum acceptable operating pressure	Desired precharge pressure	Maximum acceptable precharge pressure	Minimum acceptable precharge pressure
1,500 psi	1,500 psi	750 psi	800 psi	700 psi
2,000 psi	2,000 psi	1,000 psi	1,100 psi	900 psi
3,000 psi	3,000 psi	1,000 psi	1,100 psi	900 psi

Power Availability

Power for the closing unit pumps shall be available to the unit at all times so that the pumps shall automatically start when the closing valve manifold pressure has decreased to the pre-set level.

Accumulator Pump Capacity

Each BOP closing unit shall be equipped with sufficient number and sizes of pumps so that, with the accumulator system isolated from service, the pumps shall be capable of opening the hydraulically-operated gate valve (if so equipped), plus closing the annular

preventer on the smallest size drill pipe to be used within 2 minutes, and obtain a minimum of 200 psi above specified accumulator precharge pressure.

Locking Devices

A manual locking device (i.e., hand wheels) or automatic locking devices shall be installed on all systems of 2M or greater. A valve shall be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve shall be maintained in the open position and shall be closed only when the power source for the accumulator system is inoperative.

Remote Controls

Remote controls shall be readily accessible to the driller. Remote controls for all 3M or greater systems shall be capable of closing all preventers. Remote controls for 5M or greater systems shall be capable of both opening and closing all preventers. Master controls shall be at the accumulator and shall be capable of opening and closing all preventers and the choke line valve (if so equipped). No remote control for a 2M system is required.

4.2 Procedure and Schedule for Testing BOP Equipment

Well Control Equipment Testing

- i. Perform all tests described below using clear water or an appropriate clear liquid for subfreezing temperatures with a viscosity similar to water.
- ii. Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 70 percent of internal yield pressure of casing if BOP stack is not isolated from casing. Pressure shall be maintained for at least 10 minutes or until requirements of test are met, whichever is longer. If a test plug is utilized, no bleed-off of pressure is acceptable. For a test not utilizing a test plug, if a decline in pressure of more than 10 percent in 30 minutes occurs, the test shall be considered to have failed. Valve on casing head below test plug shall be open during test of BOP stack.
- iii. Annular type preventers shall be tested to 50 percent of rated working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer.
- iv. As a minimum, the above test shall be performed:
 - a. when initially installed:
 - b. whenever any seal subject to test pressure is broken:
 - c. following related repairs: and
 - d. at 30-day intervals.
- v. Valves shall be tested from working pressure side during BOPE tests with all downstream valves open.

- vi. When testing the kill line valve(s), the check valve shall be held open or the ball removed.
- vii. Annular preventers shall be functionally operated at least weekly.
- viii. Pipe and blind rams shall be activated each trip, however, this function need not be performed more than once a day.
- ix. A BOPE pit level drill shall be conducted weekly for each drilling crew.
- x. Pressure tests shall apply to all related well control equipment.
- xi. All of the above described tests and/or drills shall be recorded in the drilling log.

4.3 BOP Installation Schedule

The BOP will be installed after running surface casing as well as after running intermediate casing. BOP equipment shall be installed on the innermost string of casing after the surface casing.

4.4 BOP Training

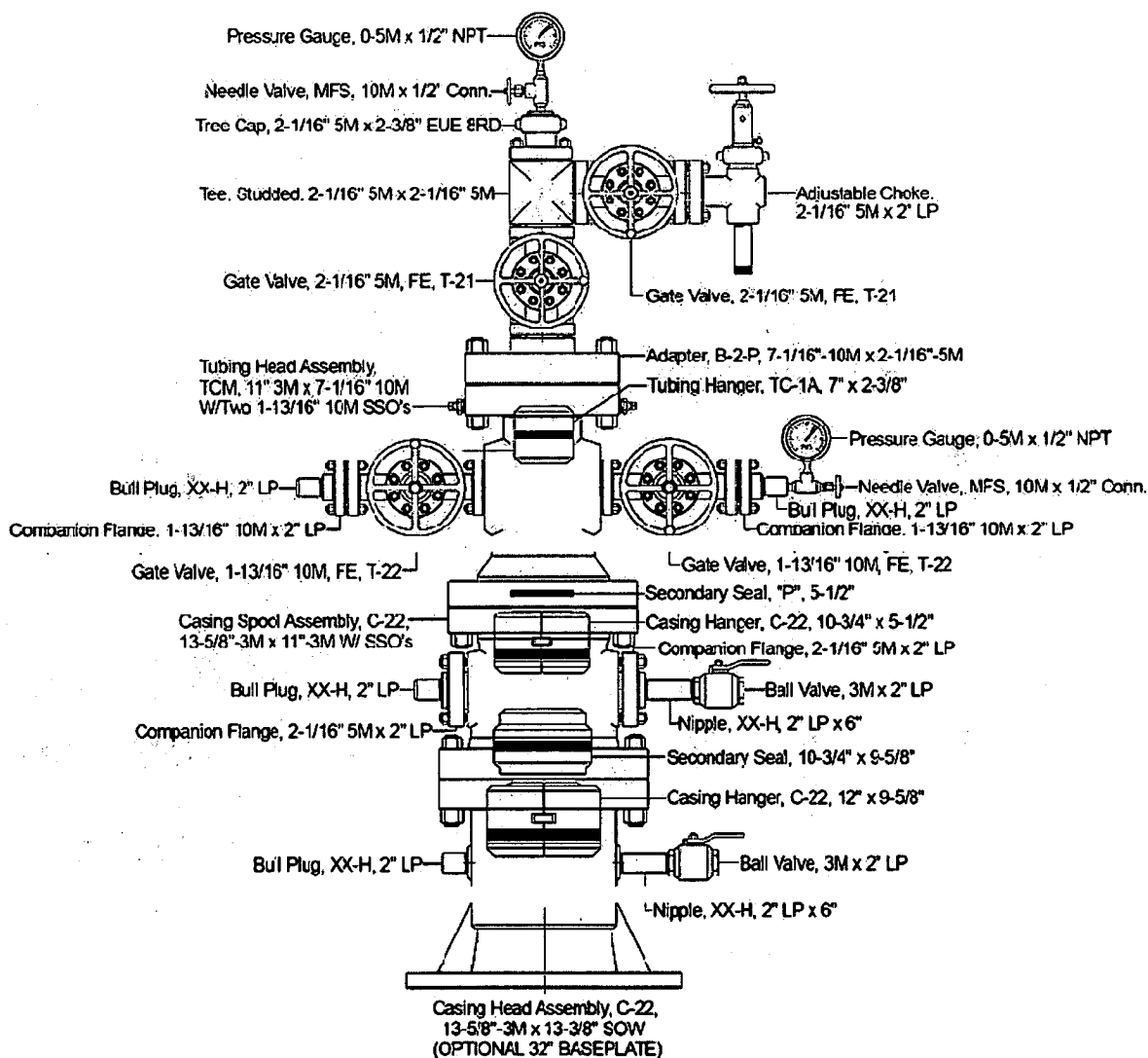
All supervisors and toolpushers used on this well will be BOP trained and certified. A trained person will be present during the drilling operations. Training certificates will be available for review on the location.

4.5 Drilling Record

Detailed records of significant drilling events such as lost circulation, hydrogen sulfide gas, fluid entry, abnormal pressures, etc. are maintained through the electronic data entry and recording system Wellview which is operated by the drilling superintendant on location. This system allows the drilling superintendant to enter daily reports containing the specified information. The records are then retained electronically in Antero HQ in Denver, CO.

The Emergency Response Plan for this operating area requires the district oil and gas inspector or the designated Office of Oil and Gas representative be notified as soon as possible of any unusual drilling events such as hydrogen sulfide gas or large kicks that occur during drilling operations. Any encounter of hydrogen sulfide gas requires immediate notification of the Office of Oil and Gas.

4.6 Schematic and Description of the Wellhead Assembly



5.0 Well Flaring Operations

5.1 Size, Construction and Length of Flare Line

The flare line will be a 6" diameter, steel line that extends 100' from the well (choke manifold to gas buster to mathena to flare pit). (We do not anticipate flaring since we would first attempt to route the flow to the Gas Buster and work the gas kick off from there. Flaring would occur as a last resort)

5.2 Flare Anchor and Choke Assembly

The line will be anchored to the surface of the ground by cross pinning it in place using metal staking at multiple points along the line. The choke assembly is described in previous section of this document and in drawing "5M Choke Manifold Equipment" BLM drawing Onshore Oil and Gas Order Number 2. Appendix C.

5.3 Flare Lighting System

The system for lighting the flare will be an automatic flare igniter using a solar collector panel and battery charger system. A second igniter will be installed as a backup. Notification to the local fire department prior to lighting the flare will be given immediately if practicable and as soon as possible thereafter.

5.4 Flare Safe Distances

The flare line(s) discharge shall be located not less than 100 feet from the well head, having straight lines unless turns are targeted with running tees, and shall be positioned downwind of rig and trailers. The flare system shall have an effective method for ignition. All flammable material beyond the end of the flare line will be cleared to a minimum distance of 75 feet.

6.0 Well Killing Operations

The following shows the inventory of all materials that will be on-site for the mixing of mud:

20 sack of Soda Ash
480 sacks of KCL
200 sacks of Biolose
40 sack of Xan-Plex
20 buckets of X-Cide 102
3 Drums of KD-40
5 Buckets of LD-S
15 super sack of MIL Bar
100 sacks of Soletex
40 Sacks of Graphite
300 Sack of Salt

Volume of mixed mud

=pit volume + equivalent volume in tanks
= 500 bbls + 500 bbls
= 1000 bbls total

Mixed Mud Weight

the mixed mud weight will vary depending on the bottom hole pressures and will be calculated and adjusted as we gather more information; we intend to use 12.8 lb – 13.0 lb mud but will adjust the mud weight as information becomes available

Volume of Add'l

Weighting Mat'l

we will have the necessary materials available to mix up enough mud to weight the mud up 1 lb more than the mud used for drilling; as an estimate, we expect to have 10 pallets of barite on site and 12 pallets of bentonite

Volume Water for Mixing

the rig has a 400 bbl rig water tank and the location will have 800 bbls additional in separate tankage.

The rig has 2 mud tanks equipped with agitators such that it can make two pills.

7.0 Hydrogen Sulfide Operations

7.1 H2S Monitoring

The drilling rig will be equipped with a H2S monitor/detector which will run continuously during drilling operations. This equipment will alarm personnel on location if H2S is detected. This equipment will be located near the shale shakers, in the cellar and in the dog house. Specific locations will be field determined.

7.2 H2S Training

All personnel that will be involved in the drilling operations will be trained in H2S in drilling operations to a minimum of the awareness level. Additional training will be given to the drilling supervisors both in H2S and emergency response duties related specifically to air toxics. All of the aforementioned training will be completed prior to spudding the well. Training records will be maintained on location. Appendix D contains the training records for the drilling crew planned for this well.

7.3 Personal Protection Equipment

The following personal protection equipment will be available and in use as needed on location:

- Hardhats,
- safety shoes,
- safety glasses and/or safety goggles/face shields,
- hearing protection earplugs,
- cotton work gloves, and
- dust mask respirators.

In the event that other hazards are identified or presented during the drilling operation, we will attempt to eliminate the hazard, and if not practical, additional PPE will be provided to mitigate the risk to the worker. In the event that H2S is detected, a hazard assessment will be performed for this exposure along with risk mitigation.

7.4 H2S Notification and Control

The emergency alarm will be audible and visual type which will be detectable by all personnel on location. If dangerous levels of H2S are detected, we will immediately implement our Emergency Response Plan which will provide for site control among other objectives. Generally, the site will be secured such that access is allowed only for trained emergency response

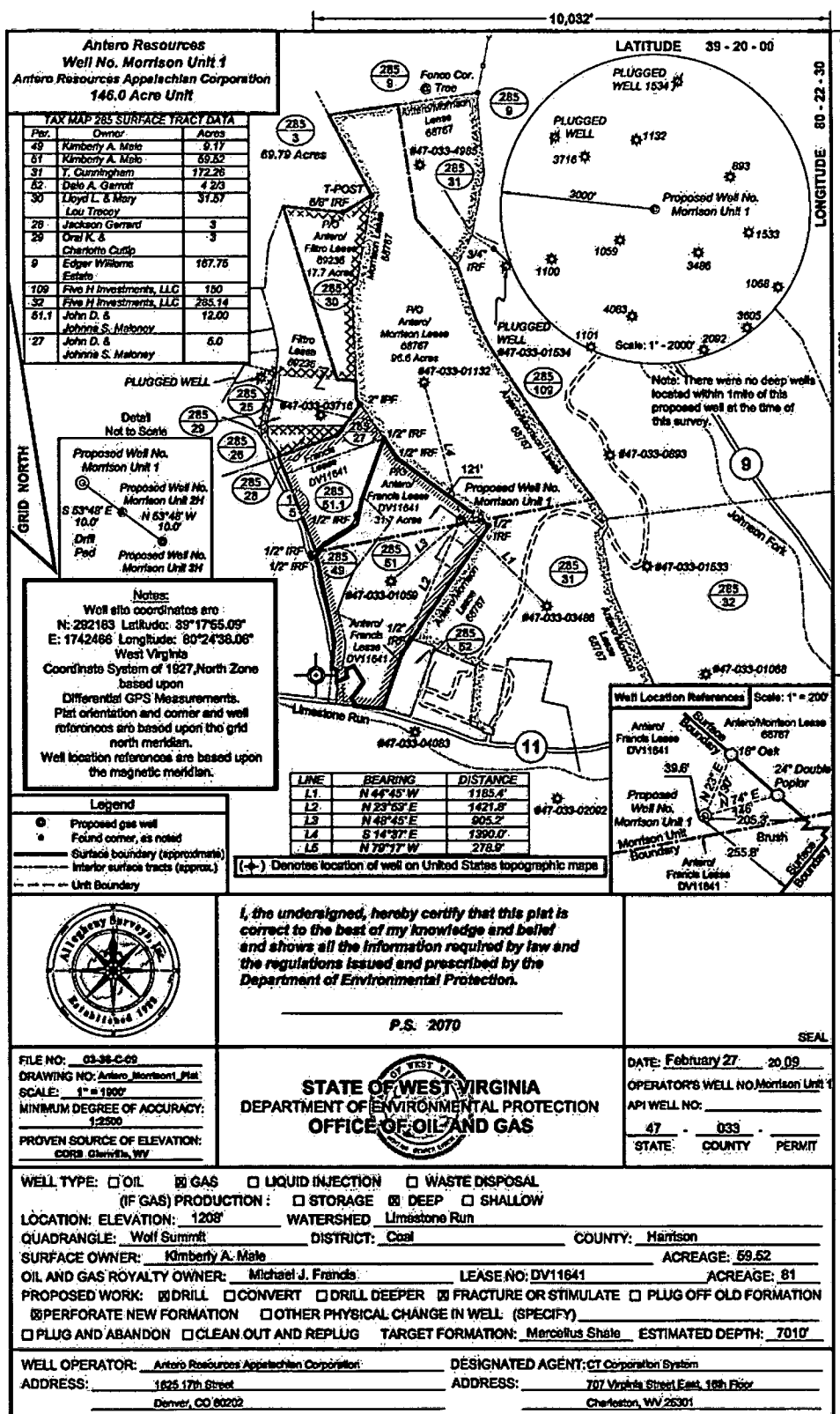
personnel. Site security will be accomplished by trained workers stationed at safe points on the perimeter and access road to the site.

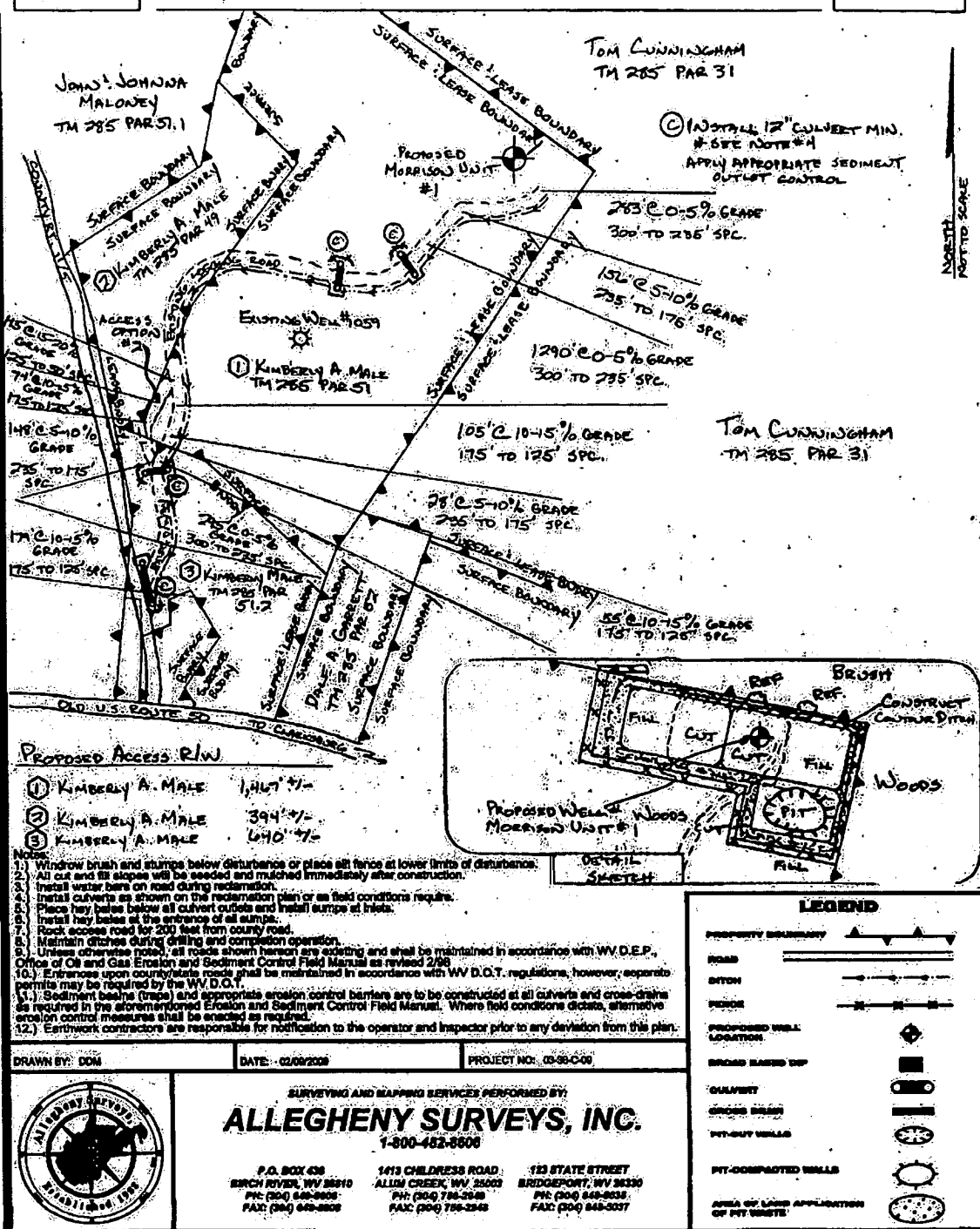
8.0 Notification

In an emergency which requires the notification of residents and emergency personnel that may be affected during drilling such as release of H₂S, flaring, etc., the emergency response plan will be immediately implemented. This plan specifies the roles and responsibilities of on site personnel in case of emergency and addresses emergency notification of potentially affected residents and public emergency response personnel.

In general under the situation presently described, after the activation of the emergency alarm, the on-site personnel will muster for a headcount by the On-Scene Incident Commander which is usually the drilling supervisor or toolpusher. After initial assessment of the situation, the OSIC will notify the public emergency response agency from which direction will be taken. If the agency allows, on-site personnel will travel to each local resident to notify them of the incident. If the public emergency responder does not direct this notification, then the public response agency will be responsible for this notification. A map showing the location of nearby residents is included in Appendix A.

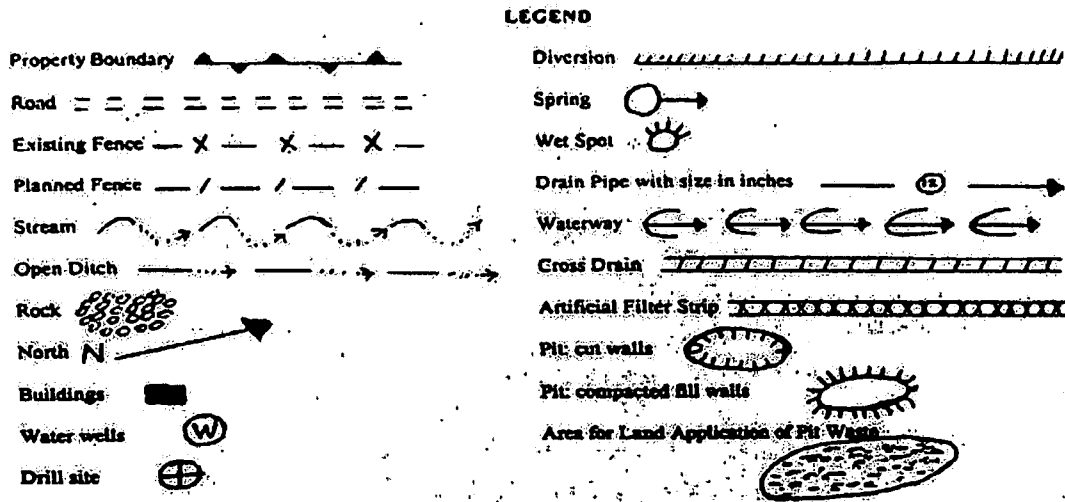
Appendix A. Maps and Drawings





CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

My commission expires _____



Proposed Re-vegetation Treatment: Acres Disturbed _____ Pre-vegetation pH _____
 New Construction + 0.20 ac. + Existing Road 0.97 ac. + Location and Pit 6.94 ac. = 8.11 ac.

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20) or equivalent 500 Lbs/acre (500 lbs-minimum)

Mulch 0.5 - 0.75 Tons/acre or hydro-seed Wood Fiber
 Mulch 2 - 3 Tons/acre Hay or straw (will be used where needed)

SEED MIXTURES

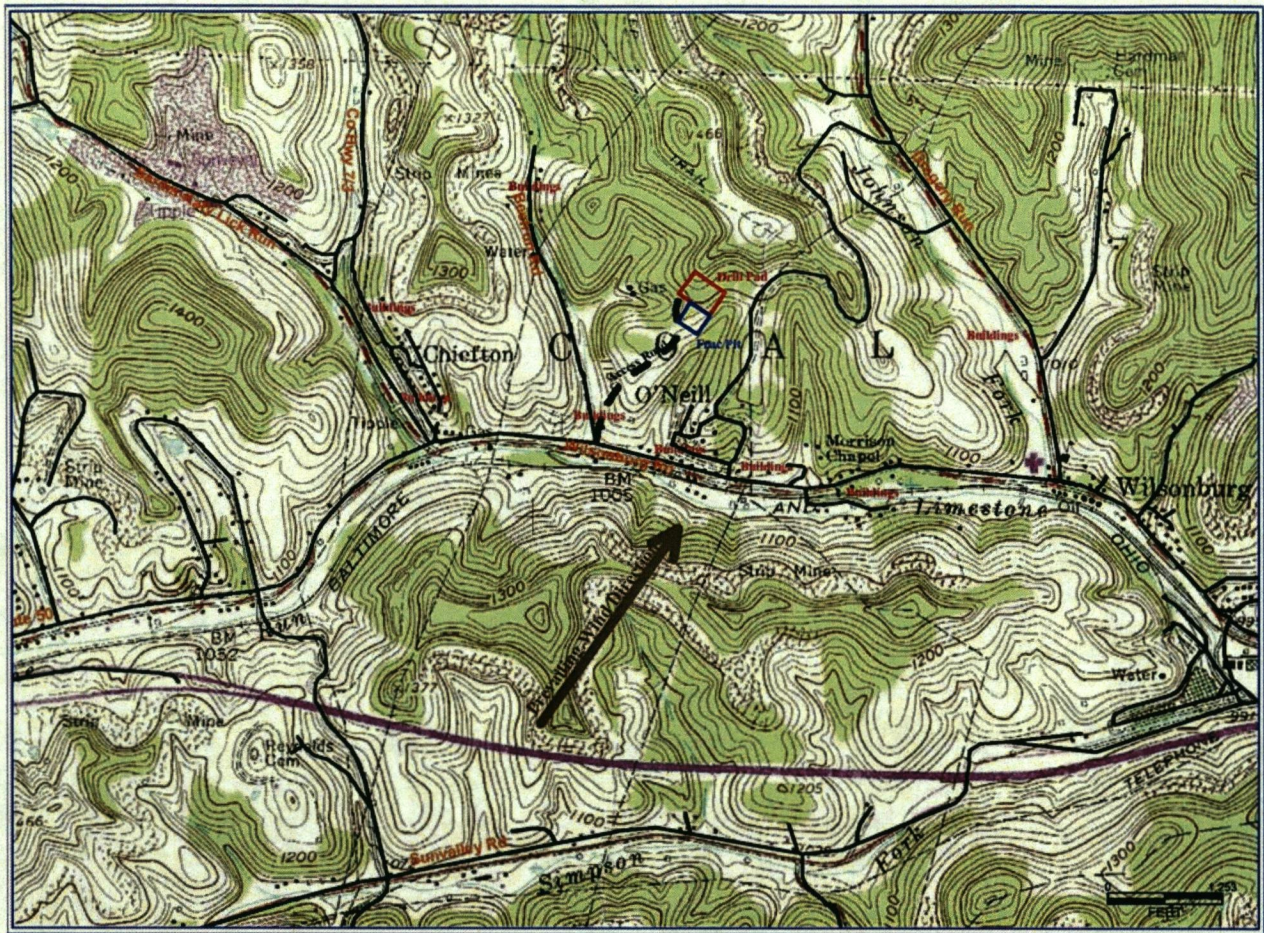
Area I		Area II	
Seed Type	Lbs/acre	Seed Type	Lbs/acre
Tall Fescue	40	Tall Fescue	40
Annual Rye	10	Annual Rye	10
Ladino Clover	5	Ladino Clover	5
Birdsfoot Trefoil	10	Birdsfoot Trefoil	10

ATTACH:

Drawing(s) of road, location, pit and proposed area for land application.
 Photocopies section of Involved 7.5' topographic sheet.

Plan approved by: _____

Title: _____ Date: _____
 Field Reviewed? () Yes () No



Map showing nearby residents, wind direction, roads, pits, surface waters

Map to Morrison #1 Pad

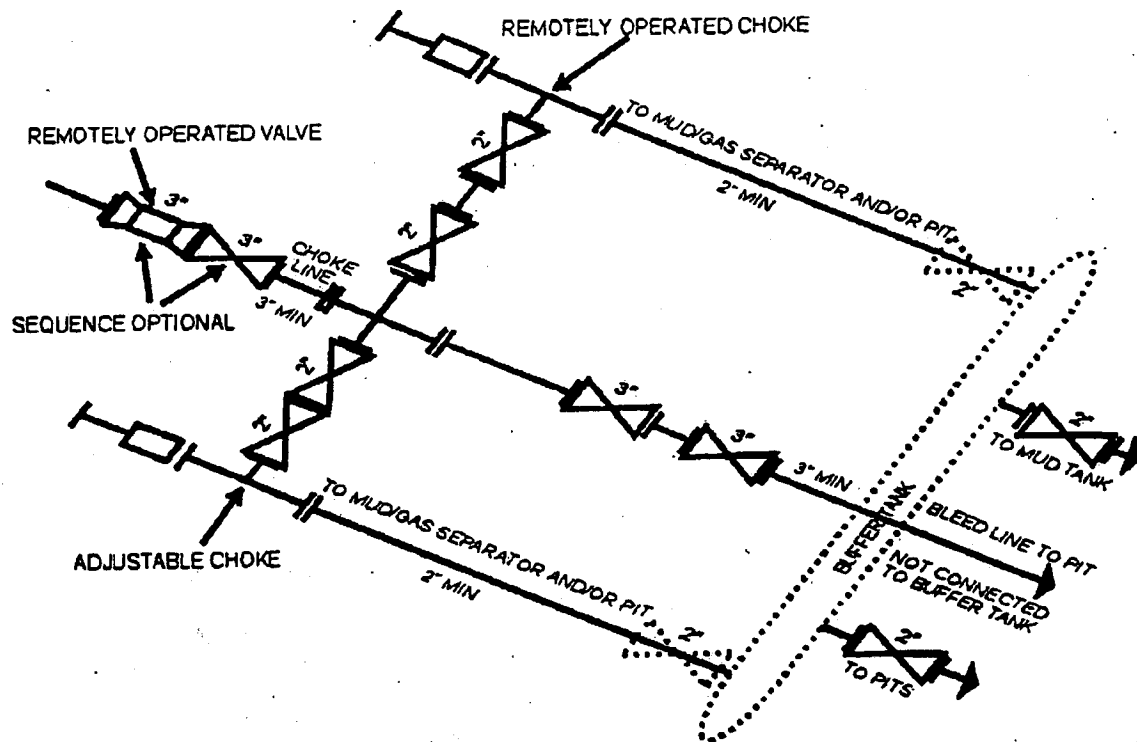


PETRA 3160205 11:45:20 AM

Appendix B. Personnel and Visitor Log

[illegible]

Appendix C.



SM CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY

Although not required for any of the choke manifold systems, buffer tanks are sometimes installed downstream of the choke assemblies for the purpose of manifolding the bleed lines together. When buffer tanks are employed, valves shall be installed upstream to isolate a failure or malfunction without interrupting flow control. Though not shown on 2M, 3M, 10M, OR 15M drawings, it would also be applicable to those situations.

[54 FR 39528, Sept. 27, 1989]

Appendix D. Copy of Frontier 3 Training Records (H2S training)

Rig 3

Frontier Drilling

Employee	LOTO	Fall Protection	Hazard	First aid CPR, BBP, H2S	Forklift	Well Control
Chris O'Driscoll	5/23/2008	5/23/2008	5/23/2008	3/25/2008	5/23/2008	12/10/2008
Jerimy Gayler	7/7/2008	7/7/2008	7/7/2008	3/19/2008	7/7/2008	11/19/2008
Victor Anguiano	5/22/2009	5/22/2008	7/22/2008	3/25/2008	5/22/2008	
Keith Bently	7/11/2008	7/11/2008	7/11/2008	11/5/2008	7/11/2008	
Billy Carmicheal	5/23/2008	5/23/2008	5/23/2008	11/5/2008	5/23/2008	
Shane Christensen						
Chris Crow	5/23/2008	5/23/2008	5/23/2008	3/25/2008	5/23/2008	10/22/2008
Bobby Daniels	7/12/2008	7/12/2008	7/12/2008	11/19/2008	7/12/2008	
Edward Dunn	7/16/2008	7/16/2008	7/16/2008	3/25/2008	7/12/2008	6/20/2008
Craig Eatmon	7/22/2008	7/22/2008	7/22/2008	3/25/2008	7/22/2008	
Matt Florez	7/22/2008	7/22/2008	7/22/2008		7/22/2008	
Todd Greenhalgh	5/23/2008	5/23/2008	7/22/2008	11/5/2008	5/23/2008	1/21/2009
jeremy Hansley	5/22/2008	5/22/2008	7/22/2008	11/5/2008	5/22/2008	10/22/2008
Scot Howarth	7/12/2008	7/12/2008	7/12/2008	3/25/2008	7/12/2008	10/22/2008
Jerome Humrich	5/23/2008	5/23/2008	5/23/2008	3/25/2008	5/23/2008	11/7/2008
Reggie Jenks	7/11/2008	7/28/2008	7/11/2008	3/25/2008	7/11/2008	
Gary Kenneson	7/11/2008	7/11/2008	7/11/2008		7/11/2008	
Dustin Kuberry	7/12/2008	7/12/2008	7/12/2008		7/11/2008	
Jonathon Lantz	5/23/2008	5/23/2008	7/12/2008		5/23/2008	
John Martinez	7/22/2008	7/22/2008	7/22/2008	11/5/2008	7/22/2008	
Foster Moosman	7/11/2008	7/28/2008	7/11/2008	3/25/2008	7/11/2008	6/20/2008
Rheo Newell	5/22/2008	5/22/2008	7/22/2008	11/5/2008	5/22/2008	